WHAT IS CLAIMED IS:

1. A laser beam scanner for scanning a plurality of laser beams in a main scanning direction, comprising:

a plurality of laser light sources, each of which emits a laser beam;

a deflector that deflects the laser beam emitted from each of the plurality of laser light sources;

a first converging unit that converges, in the main scanning direction and in a sub-scanning direction perpendicular to the main scanning direction, the laser beam deflected by the deflector;

a photosensitive member across which the laser beam converged at least in the sub-scanning direction by the first converging unit is scanned;

a detector that receives and detects the laser beam converged at least in the main scanning direction by the first converging unit to provide scan start timing of the laser beam,

a second converging unit that converges the laser beam emitted from each of the plurality of laser light sources onto the deflector; and

a third converging unit that converges, in the sub-scanning direction, the laser beam converged at least in the main scanning direction by the first converging unit, on the detector, wherein a lateral magnification in the sub-scanning direction in an optical path from the deflector to the detector is less than the lateral magnification in the sub-scanning direction in an optical path from the deflector to the photosensitive member.

2. The laser beam scanner according to claim 1, wherein the second converging unit that converges, in the sub-scanning direction, the laser beam emitted from each of the plurality of laser light sources on the deflector; and the second converging unit and the third converging unit are formed by a same type of unidirectional converging lens.

3. The laser beam scanner according to claim 1, wherein the first converging unit comprises a first lens having converging power in the main scanning direction and a second lens having converging power in the sub-scanning direction, and wherein the lateral magnification in the optical path from the deflector to the photosensitive member is represented by L2/L1, where L1 is a distance between the deflector and the second lens and L2 is a distance between the second lens and the photosensitive member, and the lateral magnification in the optical path from the

deflector to the detector is represented by L4/L3, where L3 is a distance between the deflector and the third converging unit and L4 is a distance between the third converging unit and the detector.

4. The laser beam scanner according to claim 2, further comprising a mirror disposed between the first lens of the first converging unit and the third converging unit so as to reflect the laser beam incident from the first lens onto the third converging unit.

5. A laser beam scanner for scanning a plurality of laser beams in a main scanning direction, comprising:

a plurality of laser light sources, each of which emits a laser beam;

a deflector that deflects the laser beam emitted from each of the plurality of laser light sources;

a first converging unit that converges, at least in the main scanning direction, the laser beam deflected by the deflector;

a photosensitive member across which the laser beam converged by the first converging unit is scanned;

a detector that receives and detects the laser beam converged by the first converging unit to provide scan start timing of the laser beam,

a second converging unit that converges the laser beam emitted from each of the plurality of laser light sources onto the deflector;

a slit member disposed on a position optically equal to a scanned position of the photosensitive member; and

a third converging unit between the slit member and the detector that converges, at least in the sub-scanning direction, the laser beam converged by the first converging unit, on the detector,

wherein a lateral magnification in the sub-scanning direction in an optical path from the slit to the detector is less than one.

6. The laser beam scanner according to claim 5, wherein the lateral magnification is represented by L2/L1, where L1 is a distance from the slit member to the third converging unit and L2 is a distance from the third converging unit to the detector.

7. The laser beam scanner according to claim 5, further comprising a mirror disposed between the first converging unit and the photosensitive member so as to reflect each laser beam to the slit.

8. A laser beam scanner that scans a plurality of laser beams in a main scanning direction, comprising:

a plurality of light sources, each light source emitting a laser beam of the plurality of laser beams;

a first converging unit converging the emitted plurality of laser beams in a sub-scanning direction;

a deflector that deflects the plurality of laser beams in a scanning direction;

a second converging unit that converges the plurality of laser beams in the scanning direction and the sub-scanning direction;

a photosensitive member onto which the plurality of laser beams are converged by the second converging unit;

a detector that receives the deflected plurality of laser beams converged at least in the scanning direction by the second converging unit; and

a third converging unit that converges the plurality of laser beams at least in the sub-scanning direction, wherein a width of the converged plurality of laser beams in the sub-scanning direction on the detector is less than a width of the plurality of laser beams in the sub-scanning direction on the photosensitive member.

9. The laser beam scanner according to claim 8, wherein the first converging unit that converges, in the sub-scanning direction, the plurality of laser beams emitted from the plurality of laser light sources onto the deflector, and the third converging unit are formed by a same type of unidirectional converging lens.

10. The laser beam scanner according to claim 8, wherein the second converging unit comprises a first lens having converging power in the scanning direction and a second lens having converging power in the sub-scanning direction, and wherein the lateral magnification in the optical path from the deflector to the photosensitive member is represented by L2/L1, where L1 is a distance between the deflector and the second lens and L2 is a distance between the second lens and the photosensitive member, and the lateral magnification in the optical path from the deflector to the detector is represented by L4/L3, where L3 is a distance between the deflector and the third converging unit and L4 is a distance between the third converging unit and the detector.

11. The laser beam scanner according to claim 10, further comprising a mirror disposed between the first lens of the second converging unit and the third

converging unit so as to reflect the laser beam incident from the first lens onto the third converging unit.

12. The laser beam scanner according to claim 8, further comprising a slit member disposed on a position optically equal to a scanned position of the photosensitive member, wherein the third converging unit is between the slit member and the detector.

13. The laser beam scanner according to claim 12, wherein the lateral magnification is represented by L2/L1, where L1 is a distance from the slit member to the third converging unit and L2 is a distance from the third converging unit to the detector.

14. The laser beam scanner according to claim 12, further comprising a mirror disposed between the first converging unit and the photosensitive member so as to reflect the plurality of laser beams to the slit member.